

What is claimed is:

1. An apparatus for severing a web, comprising:

a rotating transfer roll, the rotating transfer roll being configured to carry a web on its exterior surface; and

- 5 a severing means, the severing means being configured to engage and separate the web into an upstream portion and a downstream portion.

2. The apparatus of claim 1 in which the severing means comprises an air knife.

3. The apparatus of claim 1 in which the severing means comprises a water knife.

4. The apparatus of claim 1 in which the severing means comprises an interference device.

5. The apparatus of claim 1 in which the severing means comprises a severing roll.

6. The apparatus of claim 1 additionally comprising:

a servo motor to direct the movement of the severing means in separating the web.

7. The apparatus of claim 1 in which the transfer roll is configured to employ a suction force, thereby adhering the web to its exterior surface.

8. The apparatus of claim 7 in which a transfer pad is employed to apply the suction force to the web.

9. An apparatus for severing a web, comprising:

a rotating transfer roll, the rotating transfer roll being configured to carry a web on its exterior surface, the rotating transfer roll having on its exterior surface a transfer pad, the transfer pad being adapted for applying a releasable suction force to releasably adhere the web to the transfer roll; and

a severing device, the severing device being configured to separate the web into portions.

10. The apparatus of claim 9 additionally comprising:

a channel upon the exterior surface of the rotating transfer roll, the channel being configured to receive at least one component of the severing device in separating the web.

11. The apparatus of claim 9 in which the severing device is adapted to sever the web at a pre-existing perforation.

12. The apparatus of claim 9 additionally comprising:

a servo motor configured to control movement of the severing device.

13. The apparatus of claim 9 in which the transfer pad is positioned along the width of the transfer roll to engage the web in its cross direction.

14. An apparatus for separating a web, comprising:

a rotating transfer roll, the rotating transfer roll being configured to carry a web on its exterior surface, the rotating transfer roll having on its exterior surface a transfer pad, the transfer pad being adapted for

5 applying a suction force to releasably adhere the web to the transfer roll;

and

a severing roll, the severing roll being configured to separate the web into portions.

15. A method of separating a web, the method comprising:

(a) providing a web,

(b) rotating a transfer roll,

(c) adhering the web to the surface of the transfer roll using a
5 suction force,

(d) providing a severing device, the severing device being selected from the group of devices comprising: air knife, water knife, interference device, and severing roll, and

(e) separating the web.

16. The method of claim 15 further wherein step (e) additionally comprises:

engaging the transfer roll with at least one component of the severing device in separating the web.

17. The method of claim 15 further comprising the step of:

(f) releasing the web.

18. The method of claim 17 wherein the releasing step (f) is accomplished by removing the suction force from the web.

19. The method of claim 17 further comprising the step of:

(g) winding the web into a roll.

20. The method of claim 15 in which the severing device is a water knife.

21. The method of claim 15 in which the severing device is an air knife.

22. The method of claim 15 in which the severing device is an interference device.